CLAIMS

1. A process for organizing a digital database in a traceable form comprising steps for the modification of a main digital database by the addition or deletion or modification of a recording of the main base and of the reading steps of the main database, characterized in that

The step of modifying the main database comprises an operation of creating at least one digital recording comprising at least:

The unique digital identifiers of the concerned recordings and attributes of the main database,

A unique digital identifier of the state of the main database corresponding to this modification of the main database,

The elementary values of the attributes assigned to them via elementary operations without proceeding to store non-modified attributes or recordings,

And the addition of this recording in an internal historization base composed of at least one internal historization table,

And in that the reading step relating to any final or previous state of the main database consists in receiving (or intercepting) an original request associated with the unique identifier of the state aimed at, in proceeding to a transformation of this original request in order to construct a modified request for addressing the historization base comprising the criteria of the original request and the identifier of the state aimed at, and the reconstruction of the recording or recordings corresponding to the criteria of the original request and to the state aimed at, which reconstitution step consists in finding the elementary values contained in the recordings of the historization base and corresponding to the criteria of the original request (in order to reduce the requirements of storage capacity and the processing times).

2. The process for organizing a digital database in a traceable form according to Claim 1, characterized in that these recordings of the historization database also contain references to other recordings of the internal database in order to specify the connections of dynamic dependence of the source-destination type constituting the causal stream of the interferences between the data versions.

3. The process for organizing a digital database in a traceable form according to any one of the previous claims, characterized in that this operation of modifying the main base is advantageously a logic operation and that said operation of addition in the historization database consists in adding:

A recording identifying the state of the base corresponding to the logic operation,

As many recordings as parameters of the logic operation,

A recording for the possible result of the logic operation,

And specifying by cognateness the regrouping of operations from the elementary level of modification to the level of the transaction, passing the number of semantic levels necessary for the applications.

4. The process for organizing a digital database in a traceable form according to any one of the previous claims, characterized in that the main database comprises one or several tables organizing the development links between the identifiers of the successive and alternative states of the main base and intended to organize the recordings of the internal database.

5. The process for organizing a digital database in a traceable form according to Claim 4, characterized in that this table or tables of the development links between the states of the main base contain(s) recordings specifying the rules of correspondence between the recordings of the internal historization database and the states of the main database.

6. The process for organizing a digital database in a traceable form according to claim 4 or 5, characterized in that this reading operation consists in determining said state of the main database by referring to said identifiers and to the tables of development links between the states of the main base.

7. An architecture for database management using the query process of any one of the previous claims, characterized in that an application querying the main database can specify the state of the desired main database.

8. The architecture for database management according to Claim 7, characterized in that this application can bring about modifications in the entire state of the main base and give rise, in the instance of an attempt to modify a previous state, to the creation of new alternatives of digital development of the main database, whose data will be generated by the same internal historization database.

9. The process for organizing a digital database in a traceable form according to any one of Claims 3 to 6, characterized in that the dependence links serve as recovery criteria for said operations already carried out.

10. The process for organizing a digital database in a traceable form according to any one of Claims 3 to 6, characterized in that the updatings carried out on the various branches can be integrated or merged into the framework of a new state "inheriting" these branches.

11. The process for organizing a digital database in a traceable form according to any one of Claims 3 to 6, characterized in that the cases of the development of the structure of the data of the main database are treated as particular cases of the development of the data of this base, however little the structure/scheme of this main base is described in the manner cited for the data, as a dictionary.

12. The process for organizing a digital database in a traceable form according to any one of Claims 3 to 6, characterized in that the historization database is explored and queried by applications via the native mode of the DBMS in order to obtain information such as, e.g., all the historical values of an attribute and all the (dynamic) incidents of every updating and to navigate along the versions and the streams of dynamic dependence in a classic manner in accordance with the querying language in force required by the DBMS.